

الكبد

The Liver...

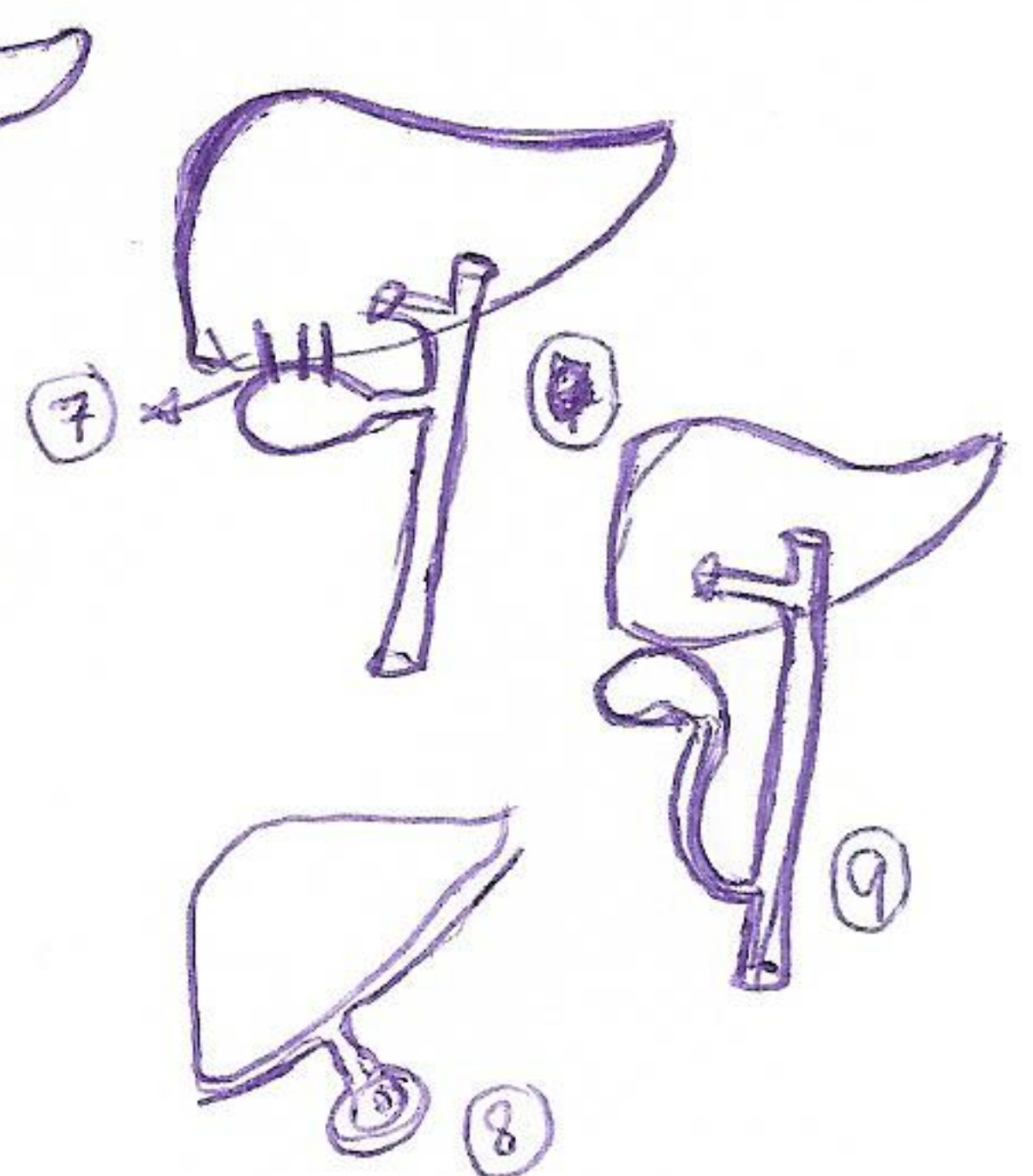
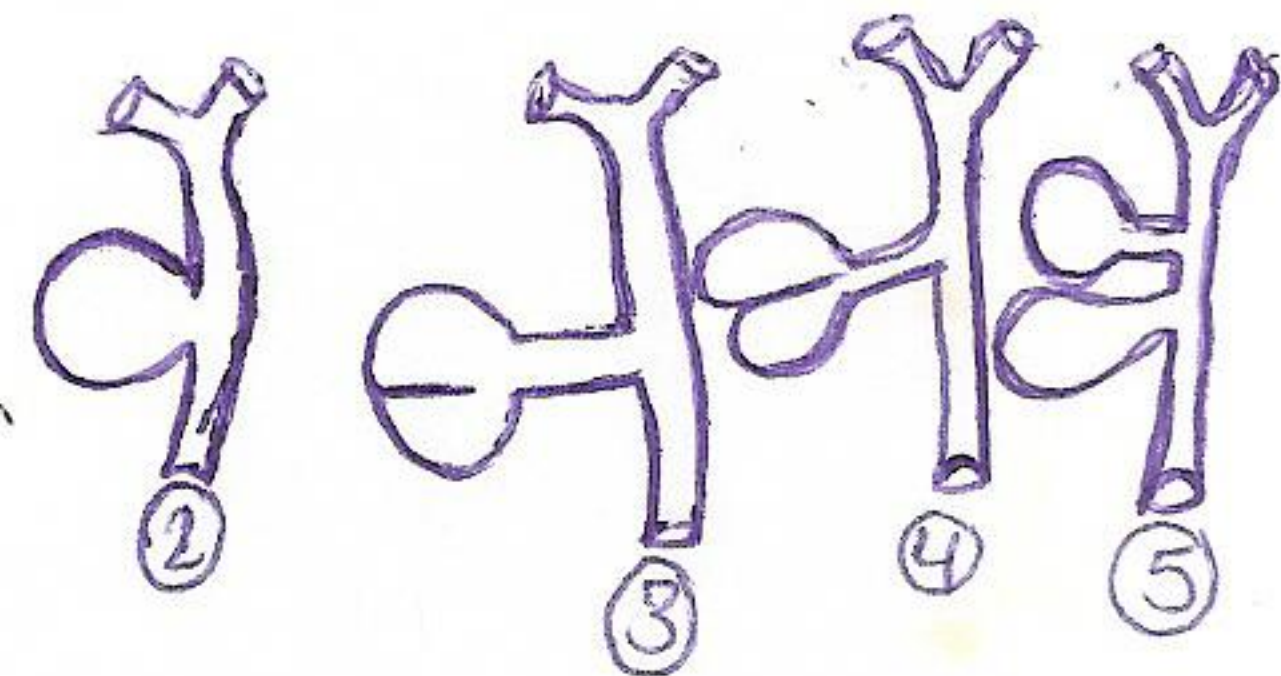
KM

* * D/D of Mass in Liver :-

- ① Cystic Lesion
 - hydatid cyst
 - cyst adenocarcinoma
 - Congenital cyst
- ② Malignant mass
 - adenocarcinoma
 - cholangiocarcinoma (biliary system)
 - 2^{ry} Metastasis
- ③ Infection
 - Amebic Liver abscess
 - pyogenic liver abscess
- ④ Other → choledochal cyst (cyst of duct of bile)
Haemangioma.

Congenital abnormality of Gall bladder:

- 1- Agenesis
- 2- Sessile duct (No duct)
- 3- Septated Gall bladder
- 4- double Gall bladder & single duct
- 5- double Gall bladder & double duct
- 6- Intra Hepatic Gall bladder →
- 7- Accessory duct
- 8- floating gall bladder
- 9- low ~~in~~ insertion of Gall bladder
- 10- choledochal cyst → premalignant
- 11- pyregiam & fundus. (Kinked)



VISIT...

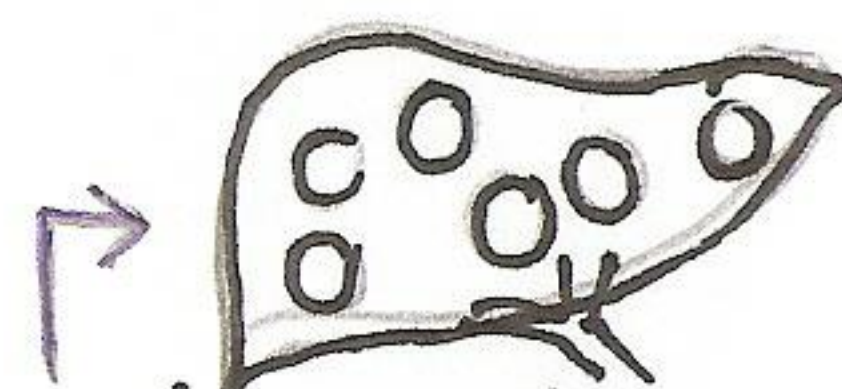
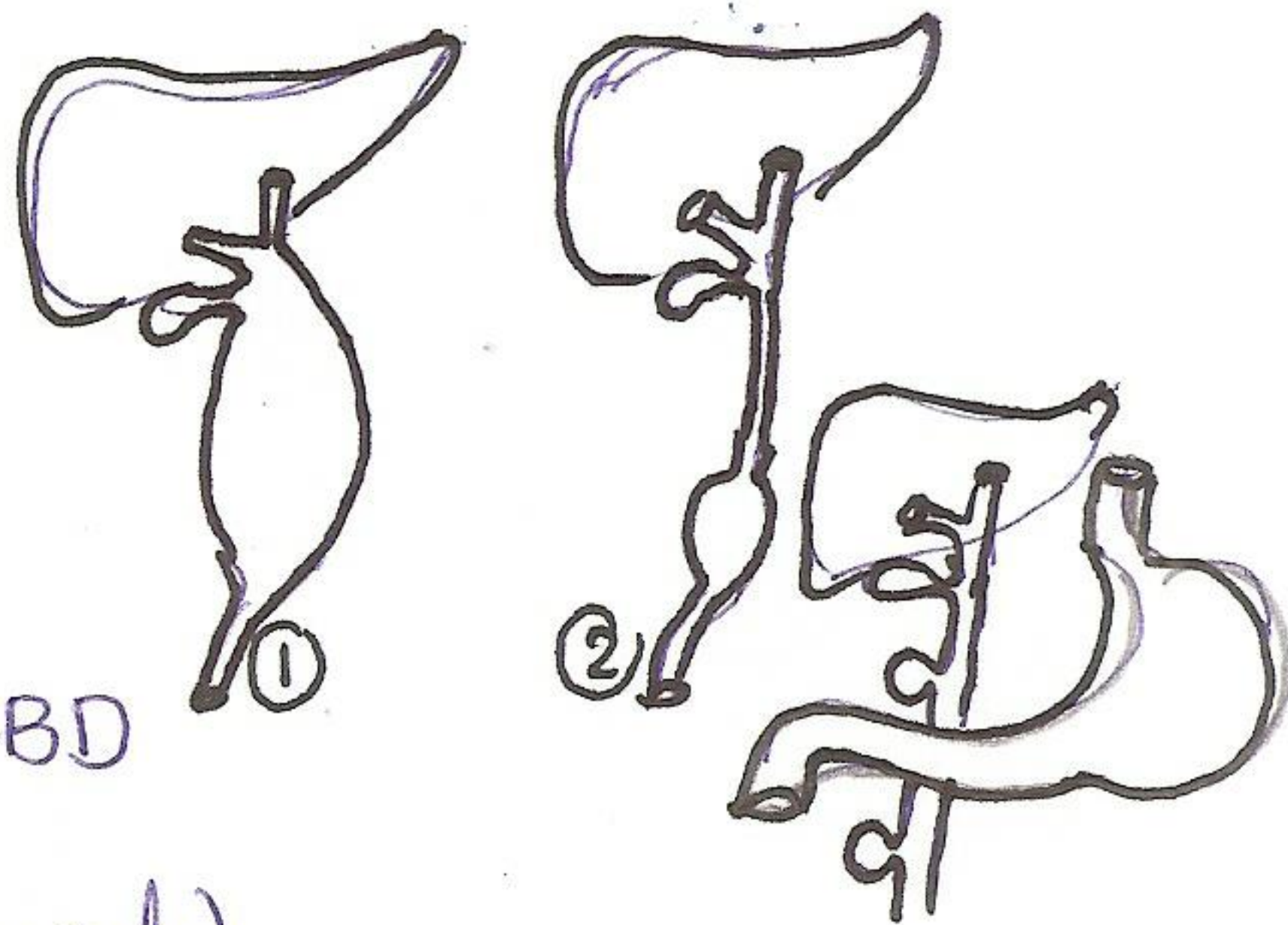
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-Cholecholel cyst:-

dilatation of Biliary duct esp (CBD)

* Types:

- ① Diffuse (fusiform) dilatation of CBD (Commonest)
- ② Localized dilatation (Supra-duodenal)
- ③ Supra-duodenal diverticulum
- ④ Intra-duodenal diverticulum.
- ⑤ Single Intra hepatic cyst
- ⑥ Multiple Intra hepatic cyst (Carolis disease) mca



→ NB (5,6) → intrahepatic, the other → Extra hepatic

* Investigation :-

U/S, MRCP, ERCP, LFT

* Complication:

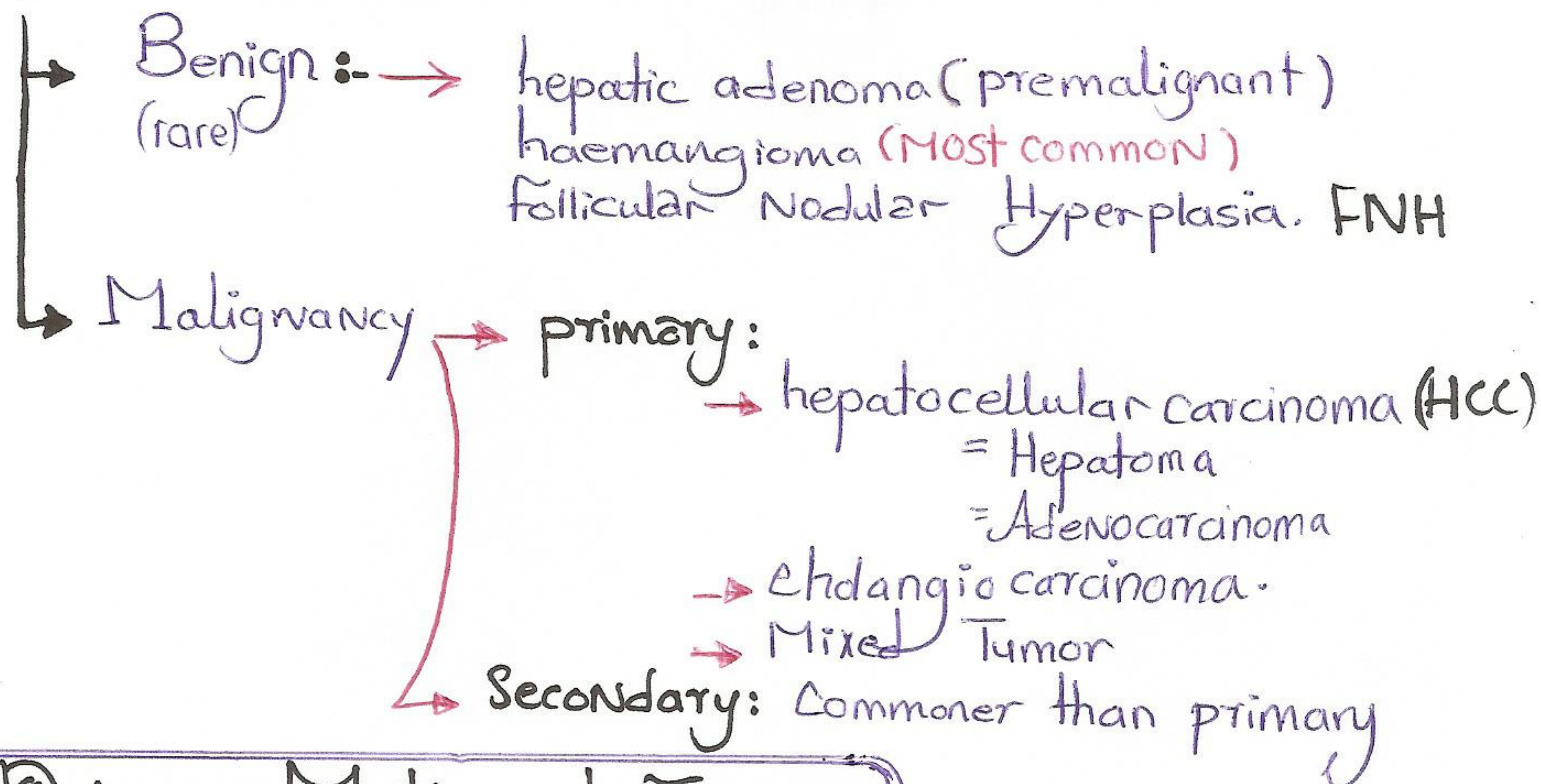
- 1- Malignancy (Cholangiocarcinoma)
- 2- Stasis → Stone formation, Infection

* ttt:

- 1- Excision & Anastomosis → send to Histopathology

→

.. → Tumours of the Liver :-



* Primary Malignant Tumor:-

* Incidence :-

the Commonest primary is HCC → 80%
 N.B. cholangiocarcinoma 20%
 the Commonest malignancy of Liver is Secondary
 (Secondary > 20% > Primary)

- Common in old male > 50ys, (Middle age now a days) (HCC)
 Common in Africa & Far East

* Aetiology :-

(A) Hepatocellular carcinoma: → hepatitis (B, C), Adenoma.
 → Liver cirrhosis (50% of pt)
 → Aflatoxin mca
 (aflatoxin → aspi derived from aspergillus flavus (Fungus of Grains))

(B) Cholangiocarcinoma: → choledocal cyst
 → Sclerosing cholangitis
 → clonorchis Sinesis mca
 → Haemochromatosis

* pathology :-

- Microscopic: Adenocarcinoma (HCC)

- Macroscopic →

* Site: Commoner in Rt lobe
Area of haemorrhage & Necrosis ...

- Spread:

- Local

- Lymphatic to Regional L.N → Hepatic L.N
→ Coeliac L.N

- Blood → Lung

- Transcoelomic → (Transperitoneal)

* Diagnosis :-

① → History, Examination

② → Investigation:

- Ultrasound

- CT scan

- MRI → (Diagnostic)

- Blood Investigation → CBC → Anemia

→ Leucocytosis

→ Tumour Marker

* ① - α -Feto protein (HCC)

* ② CA 19-9 (cholangio) (prognostic rather than Diagnostic)

* - Hepatic angiography → (b/c highly vascular)
? - Biopsy.

* Clinical picture →

Generally :- wt loss, Anemia, anorexia, Asthenia (cachexia)

Local :- Hepatomegaly, palpable Gall bladder, Jaundice, Ascites.

→ Symptoms & sign of metastasis
e.g Lung → Haemoptysis, Dyspnea.

- tt :-

(A) - inoperable : ~~85%~~ (palliative treatment)

* treat: Jundice, dehydration, Infection
- Anemia, pain $\rightarrow$ (Nerve irritation
capsule stretch)

- Chemotherapy
 - capsule site
 - systemic
 - Intra hepatic

③ Operable cases:

- 1- Resection of Tumour & L.N (2cm safe margin)
- 2- post-operative chemotherapy
- 3- Transplantation if pt $\longrightarrow$ advanced liver cirrhosis

* Secondary Malignancy (liver metastasis) :-

* Commoner than the primary $> 20\%$

* * pathology :- (80% Commonly from GTT Tumour through portal vein)

- Adenocarcinoma, Either Synchronous $\rightarrow$ at the same time of primary ...
or Metasynchronous

or Metasynchronous
- Months or years after primary...

- Clinical picture:-

① picture of the primary + Ascites, Jundice...etc

- **ttt**: inoperable cases: (palliative treatment)

N.B:

Secondaries : in liver, usually Multiple, Small & Superficial.
primary : Single, Large & deep...

السرطان الحميد

* ** Benign tumours of Liver :-

	Hepatic Adenoma	Focal Nodular Hyperplasia	Haemangioma...
Incidence	Rare M=F	Rare More in ♀ (middle age)	Very Common M=F
Morphology	well circumscribed Solid vascular tumour	Focal over growth of functioning Liver tissue	Multiple Abnormal plexus of vessels..
Diagnosis	ONLY by :- Histopathology (No radiological feature) Dx by → per-cutaneous Biopsy or after Resection	by : sulphur colloid Liver Scan → high range of uptake by Focal Nodule "	by : U/S , CT scan
treatment	Resection	Resection	Conservative if Large or symptomatic Resection
Complication	Malignant change high potential	No malignant transformation	rare malignant may Rupture (rare)

- Eman. G. ☺
- Elias Elnaas

* Liver transplantation:-

- King's College criteria for orthotopic Liver transplantation in acute Liver Failure:-

(A) paracetamol Induced:- $\text{pH} < 7.30$ Irrespective Grade of Encephalopathy

$\text{PT} > 100 \text{ sec}$

Serum creatinine $> 300 \mu\text{mol/L}$

$\bar{e}$ Grade 3 or 4 Encephalopathy.

(B) NON paracetamol Induced:- (Irrespective of Encephalopathy)

$\text{PT} > 100$ or any three of the following:

- Age $< 10 \text{ y}$ or $> 40 \text{ y}$
- More than 7 day jaundice before Encephalopathy
- $\text{PT} > 50 \text{ s}$
- Bilirubine $> 300 \mu\text{mol/L}$
- Aetiology of non A, non B, Halothane. or Idiosyncratic drug reaction..

Amoebic Liver Abscess

KM

→ Incidence: Common in tropical Region

→ Aetiology: - (protozoal infection) → *Entamoeba histolytica*..

- Route of Infection: Ingestion of cyst in (unwashed vegetables)
 → Release of Trophozoites in Large intestine → penetration of Mucosa → portal circulation → Liver usually solitary IN Rt lobe...

→ * pathology:

- the Abscess is Large - thin-walled Irregular..

- usually single but may be Multiple

the wall = it contains *Entamoeba* → they live in healthy not dead tissue

the parasite starts the process of Liquefactive Necrosis..

- CONTENT: Sterile pus + Destroyed Liver Substance, leucocyte RBC but NEVER *Entamoeba*..

→ Clinical picture:

- General: pyrexia - Rigor - Malaise, wt loss, Night sweating
 dysentery in 50% of pt

Local: - upper Rt - hypochondrium pain

- Tender Liver Enlargement

- Basal pulmonary collapse

- Pleural effusion

- Diagnosis: - ① CBC

④ u/s → site, size of Abscess

② Stool Analysis (Isolation of cyst)

⑤ CT scan.

③ Serological test → Amoebic protein.

↳ chest X-ray...

- ttx :- Medical: Metronidazole

if No clinical Response within 72hr → Aspiration by

NB: if complicated by Rupture → Open surgery.

Needle..



Pyogenic Liver Abscess

K.M.

- Incidence: Most common hepatic Abscess
abscess may be single or multiple
- 90% of Rt lobe abscess are single, 10% of left lobe abscess (Multiple)

Aetiology:-

1. Direct spread from Biliary system (Empyema of Gall bladder)
2. Abdominal sepsis → Appendicitis
Diverticulitis. (Spread from portal vein)
3. Septic focus (by hepatic artery)
4. Follow blunt or penetrating injury
5. 40% of pt have underlying malignancy
6. 25% of pt have are cryptogenic

- Most common organism: E-coli, Streptococcus Fecalis
Strept-Miller, Staph aureus, Klebsiella

Clinical picture:

- Generally: pt Toxic, High fever, Rigor, Jundice
- Locally: Rt hypochondrium pain + Tender Liver

- Diagnosis:
 - CBC → leukocytosis - Anaemia, LFT ↑ Alkaline phosphatase
 - X-ray → Rt lobe of lung Atelectasis or pleural effusion
Rt Diaphragm may Elevated
 - U/S, CT scan → Most useful
It provide Information about → Site, size
Number, of Abscess

- ttt:- Drainage
 - per-cutaneous drainage of Abscess
under U/S Guide + Antibiotic therapy
 - Open surgery:- when per-cutaneous → difficulty

Multiple Small abscess → Require prolonged treatment + Antibiotic
for 8 wk → Lobectomy...

د/خالد عبدالرحمن

HYDATID CYST (of Liver)

Oral Exam.
KML

- Incidence:-

Common in Libya, Iraq - Yemen

* * Etiology:-

QMCQ

- Echinococcus Granulosus → unilocular Hydatid disease (Commonest)
- Echinococcus Multilocularis → multilocular hydatid disease
- Echinococcus vogeli → polycystic hydatid disease

- pathology:-

- definitive host → Dogs

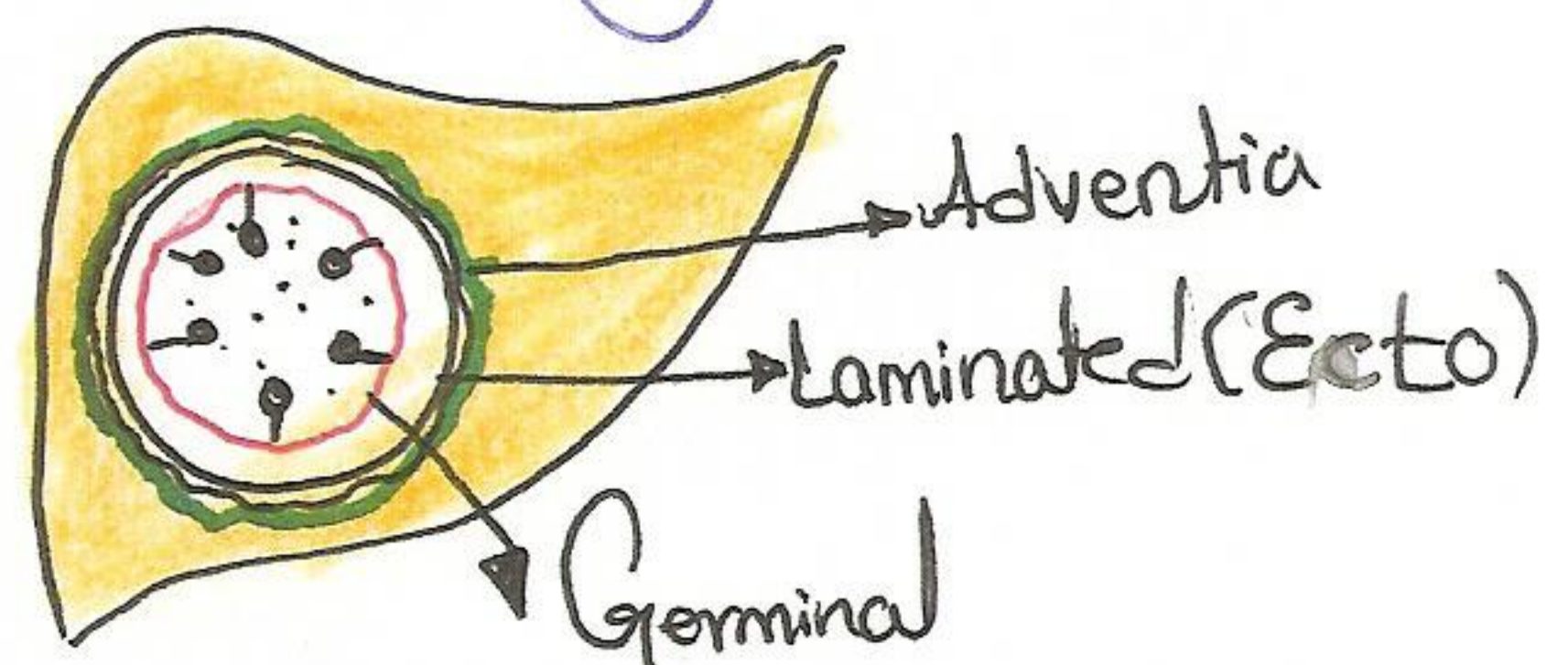
- Intermediant host → Man - cattle

- Commonest site liver - Rt Lobe through

- portal circulation. (eggs Hatch → Onchosphere...)

usually single consisting of three Layer:-

- 1- Adventia (Pseudocyst) from liver tissue...
- 2- Laminated membrane
- 3- Germinal layer (Endocyst) → containing Scolices, daughter cyst



Clinical picture: usually Asymptomatic or
Complaining of mild pain in Rt hypochondrium

↓ wt In spite Good appetite

S/S of complication.

ON Examination

Q Hydatid Thrill → on percussion.

* Complication:

- 1- Infection (2ry bacterial) → Liver Abscess
- 2- Calcification
- 3- Rupture which is cause:
 - Anaphylactic shock
 - Multiplicity
 - peritonitis
 - pleural effusion.

Investigation:

- ① CBC → Leukocytosis mainly Eosinophilia
- ② Casoni's test +ve 75%
- ③ Serological test (more accurate)
- ④ U/S , CT scan

T

t.t.t.

① - Surgical Rx ① Excision Standard Rx
 done by → aspiration of fluid...
 Inject Hypertonic saline (perlaine)
 then Excise the cyst

② Medical Rx :- Mebendazole

* * * Indicated if :- ① unfit for surgery
 ② Recurrence after surgery
 ③ Inaccessible

* *